client

sprintf(data, "RETRANSMIT");

if (send(sockfd, data, strlen(data),0)--1)

{

printf("\n error in sending RETRANSMIT..."); exit(1);

firsttime=0; }

}

else

printf("\n\* packet accepted sending ACK");

memset(&data, 0, sizeof(data));

sprintf (data, "ACK");

if (send(sockfd, data, strlen(data),0)-1)

{

printf("\n error in sending ACK...");

exit(1);

}

}

while(currentpacket != 5);

printf("\n all packet received... exiting.");

close(sockfd);

)

#include <stdio.h>

#include <stdlib.h>

#include <string.h>

#include <netdb.h>

#include <sys/types.h>

#include <netinet/in.h>

#include <sys/socket.h>

#define PORT 3599

int main()

{

int sockfd, newsockfd, size, firsttime=1,currentpacket;

char data[100];

struct sockaddr in client;

memset(&client, 0, sizeof(client));

sockfd= socket(AF\_INET, SOCK\_STREAM, 0);

if(sockfd=-1)

{ printf("Error in sacket-creation...");

}

else

{

printf("\n socket created..");

}

client.sin\_family=AF INET;

client.sin\_port=PORT;

client.sin\_addr.s\_addr=inet\_addr("127.0.0.1");

printf("\nstarting up..");

size=sizeof(client);

printf("\n establishing connection..");

if (connect(sockfd, (struct sockaddr\*)&client, size)==-1)

{

printf("\n error in connecting to server..");

exit(1);

} else

printf("\n connection established!!");

}

memset(&data,, sizeof(data));

sprintf(data, "REQUEST");

if(send(sockfd, data, strlen(data),0)=-1)

{

printf("error in sending request for data);

exit(1);

}

do

{

memset(&data, 0, sizeof(data));

recv(sockfd, data, 100,0); currentpacket=atoi(data);

printf("\n got packet:d",currentpacket); if (currentpacket-3 & firsttime)

printf("\n simulation: packetdata corrupted or incomplete");

printf("\n sending RETRANSMIT.");

memset(&data,, sizeof(data));

server

include <stdio.h>

printf("\n\*\* received a RETRANSMIT packet Resending last packet...");

}

sleep(1);

}

while(currentpacket !=6);

}

else

{

printf("\n error in listening...");

exit(1);

}

close(sockfd);

close(newsockfd);

printf("\nsending complete. sockets closed.exiting...");

}

#include <stdlib.h> #include <string.h>

#include <netdb.h>

#include <sys/types.h> #include <netinet/in.h>

#include <sys/socket.h>

#define PORT 3599

void itoa (int number, char numberstring[])

{ numberstring[0]= (char) (number+48); numberstring[1]='\0';

} int main()

int sockfd, newsockfd, size, currentpacket=1;

char buffer[100]; socklen\_t len;

struct sockaddr\_in server, client;

memset(&server, 0, sizeof(server));

memset(&client, 0, sizeof(client));

if ((sockfd socket (AF\_INET, SOCK STREAM, 0))-1)

printf("\n ERROR IN SOCKET CREATION...");

exit(1);

else

printf("\n socket created successfully...."); }

server.sin\_family=AF INET;

server.sin port=PORT;

server.sin\_addr.s\_addr =INADDR\_ANY;

printf("\n starting up..");

if(bind(sockfd, (struct sockaDDR \*)&server, sizeof(server))==-1)

{

printf("\nbinding error..");

exit(1);

} else

} printf("\n binding completed successfully waiting for connection...");

len=sizeof(client);

if(listen(sockfd, 20) != -1)

{ if((newsockfd accept (sockfd, (struct sockaddr \*)&client, &len))==-1)

printf("error exit(1);

in accepting connection...");

}

memset(&buffer, 0, sizeof(buffer)); if (recv(newsockfd, buffer, 100,0)--1)

printf("\n receive error! exiting...");

exit(1);

printf("/nrecieved a request from client.sending packets oone by one..");

do

memset(&buffer, 0, sizeof(buffer));

itoa (currentpacket, buffer);

send (newsockfd, buffer, 100,0);

printf("\n packet send %d", currentpacket);

memset(&buffer, 0, sizeof(buffer));

recv(newsockfd, buffer, 100,0);

currentpacket++;

if(strcmp(buffer, "RETRANSMIT")==0)

{

currentpacket--;